

# PYROTHERM CS 1200

## Infrared calibration source/black body

### Overview



### Description

The infrared calibration source PYROTHERM CS 1200 is used for the calibration and verification of infrared radiation thermometers and infrared cameras within the temperature range from 300 °C to 1200 °C. The cavity style guarantees a very high emissivity.

The temperature adjustment can be done directly at the black body or via serial interface RS-485 (optional USB adapter) with PC software. Digital PID controller and high-precision temperature sensor provide excellent accuracy and stability.

### Technical data

Type	PYROTHERM CS 1200
Temperature range	300 °C to 1200 °C
Aperture diameter	38 mm
Emissivity <sup>1</sup>	0.99 ± 0.005
Measurement uncertainty <sup>1</sup>	2 K + 0,0025 · T [°C]
Reproducibility <sup>1</sup>	0.5 K + 0.001 · T [°C]
Control stability	0.3 K
Display resolution	0.1 K
Temperature constancy <sup>1</sup>	0.3 K + 0.001 · T [°C] (for the central area Ø 20 mm, related to the center)
Heat up time	300 °C: 30 min, 1200 °C: 50 min
Cavity features	Cavity material: SiC Variant: Cylinder with conical base Depth: 225 mm (front edge of radiator cover to cavity base)
	Inner diameter: 45 mm
Temperature sensor	Type R Pt13Rh
Controller	PID
Interface	RS-485 (optional USB adapter and software)
Dimensions	380 mm × 530 ... 545 mm (adjustable) × 500 mm [W × H × D]
Weight	approx. 37 kg
Power supply	220 to 240 V AC, maximum 3 kW

<sup>1</sup> At 3.9 µm (narrowband) wavelength.